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- 3. The semiconductor device according to claim 1, wherein said ring-shaped conductive layer is formed of a same material as said gate electrodes of said MOS transistors.
- **4.** The semiconductor device according to claim **1**, 5 wherein said bipolar transistor comprises an insulation film that provides insulation between said emitter electrode and a base region only within said ring-shaped conductive layer.
- 5. The semiconductor device according to claim 1, wherein an insulation film that forms said side walls of said 10 MOS transistors and an insulation film that provides insu-

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lation between said emitter electrode and a base region are formed of different insulation films.

- 6. The semiconductor device according to claim 1, wherein a variation of a drain current of said MOS transistors is between 1 and 5 percent.
- 7. The semiconductor device according to claim 1, wherein said emitter electrode has an outer periphery part which is formed over said ring-shaped conductive layer.

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